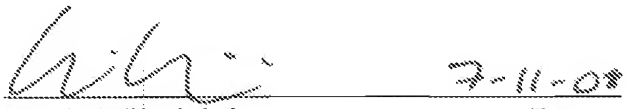
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No.	:	10/803,306	)
Applicant	:	Glenn C. Calhoun et al	)
			)
Filed	:	March 18, 2004	)
Title	:	Process for Preparing an Aqueous Dispersion of a Quaternary Ammonium Salt Containing Vinyl Copolymer	)
			)
TC/A.U.	:	1713	)
Examiner	:	Harlan, Robert D.	)
			)
Docket No.	:	100-00268	)

CERTIFICATE OF ELECTRONIC SUBMISSION

I hereby certify that this correspondence is being submitted electronically with the United States Patent and Trademark Office's electronic filing system (EFS Web) on this 11th day of July, 2008.



Marie Mikolainis — Date

DECLARATION OF GLENN C. CALHOUN

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Glenn C. Calhoun , hereby declare that:

1. I am one of the joint inventors of the subject matter defined by originally filed claims 1-24 and described in the specification of the above-identified patent application.

2. I, together with Rodney M. Weston, the other joint inventor, conceived and reduced practice the invention defined by claims 1-24 of the present patent application.

3. I received a Ph.D. in organic chemistry from the University of Illinois in 1986.

4. I was employed at S.C. Johnson & Son, Inc. from 1986 to 1999 in the field of polymer chemistry, and I joined Bostik, Inc., the assignee of record of the above-identified patent application, in 1999 to work in the field of adhesive polymer chemistry, where I am currently employed.

5. By virtue of my education and practical experience, I believe I am thoroughly familiar with the subject of polymerizing polymers, especially the process set forth in original claims 1-24 filed in the above-identified patent application.

6. In response to the most recent rejection of our application in the Patent Office Action dated January 11, 2008, I performed an experiment to produce the desired product by the method described in Chang et al U.S. Published Patent Application No. 2003/0032352A1 in accordance with the following procedures.

7. A resin kettle was equipped with a pitched blade mixer, an overhead stirring motor, and a distillation condenser. To this was added 700 grams of a 45% solids solution of the polymer described in Example 1 of the Chang et al application. The solvent composition was 75% acetone and 25% water. The polymer has an inherent viscosity of about 1.5. The polymer mixture was heated with a water bath and the solvent was continuously removed over a two hour period. During this time, the product became progressively thicker and more difficult to mix. Toward the end of the distillation, the product became so thick that it pulled away from the sides of the vessel and formed a ball around the stirring shaft. This slowed the distillation rate due to the reduced contact of the material with the heat source. After two hours, the mixer was no longer able to effectively mix the product even though the water bath was at 210°F, within two degrees of the boiling point of water. The stirrer speed had slowed significantly, even though the setting was the same throughout the experiment. This was due to the highly viscous nature of the product. At this point, the process was stopped and a portion of the thick material was tested for solids content. The result was 79% solids. This indicates that the material still contained 21% solvent. Since the solvent was originally 55% of the total material, about 75% of the solvent can be removed before the product becomes unmanageable in the process of Chang et al. The amount of collected distillate was also significantly lower than theoretical.

8. Attached are photographs showing the initial set up of the equipment used in the above-described Chang et al process experiment (Photo #1) as well as close-ups of the flask and product at various times during he experiment itself, i.e. 0 minutes (Photo

#2), 30 minutes (Photo #3), 60 minutes (Photo #4), 75 minutes (Photo #5), 90 minutes (Photo #6), and 120 minutes (Photo #7).

9. In summary, this experiment shows that the process described in Chang et al is not practical for a typical batch reaction, particularly one in a commercial scale of thousands of gallons. Additionally, all of the solvent cannot be removed because of the high viscosity of the polymer material, thus reducing the amount of solvent that can be recycled.

10. In contrast, the surprising step of adding a large amount of water to the polymer solution in the process of our application allows us to maintain a low, easily-processed viscosity throughout the process and to recover enough acetone rich distillate to run the next batch without any additional purification steps. The surprising feature of this process is that both of these aspects could be achieved. One would expect the addition of water to reduce the viscosity but would not expect to obtain an easily recyclable distillate. These steps make the process commercially practical.

11. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title XVIII of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

July 22, 2008
Date

Glenn C. Calhoun
Signature
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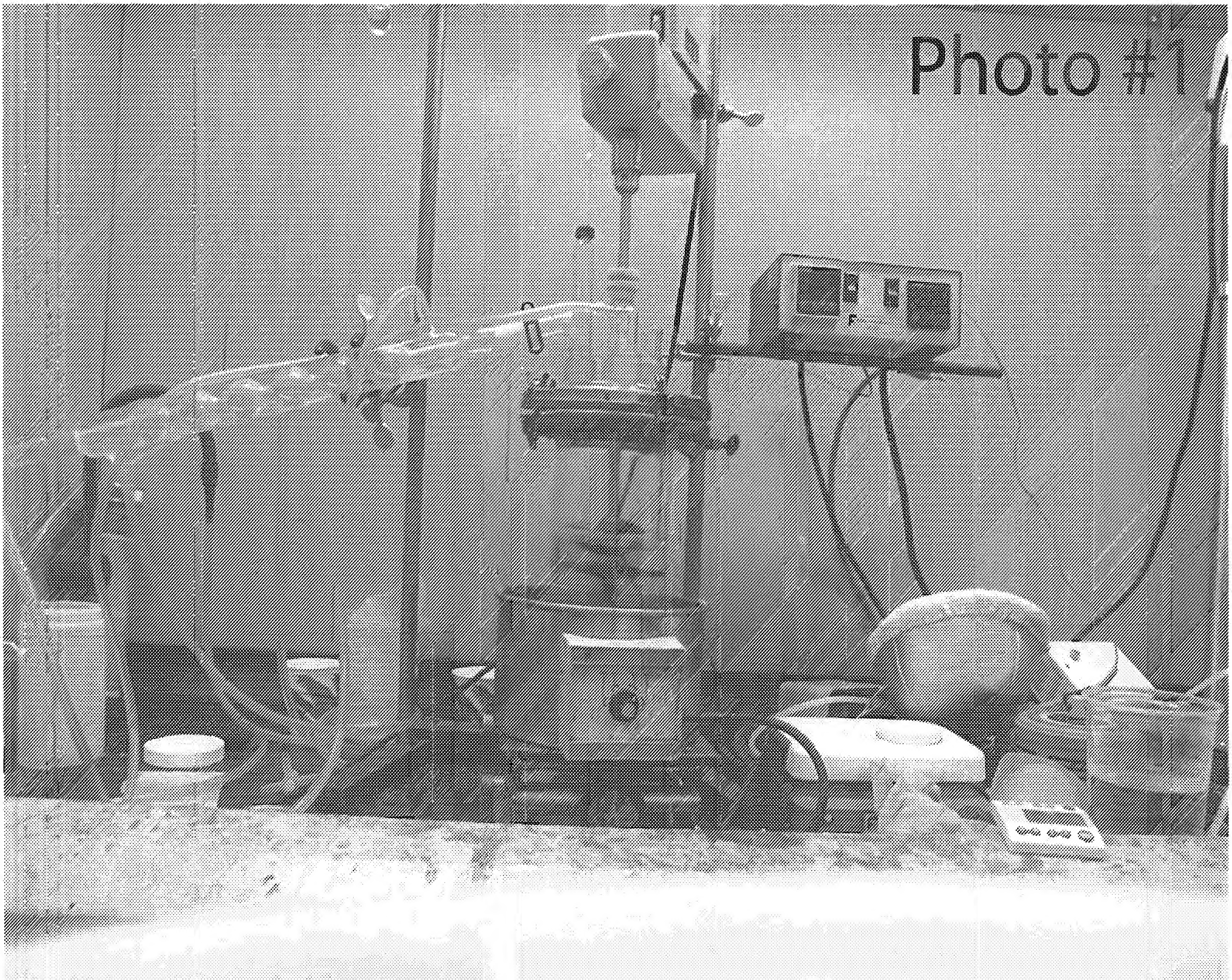

Photo #1

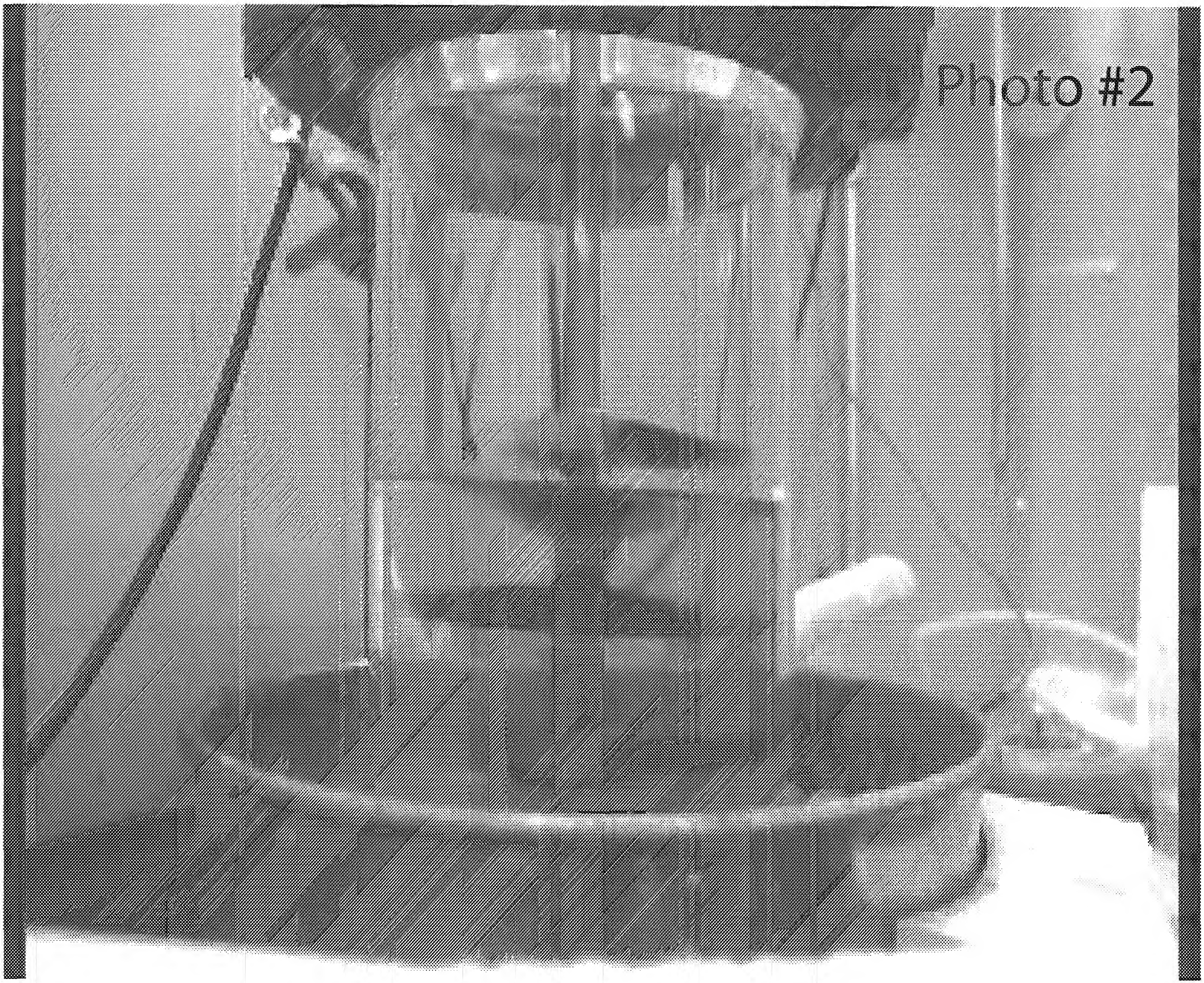

Photo #2

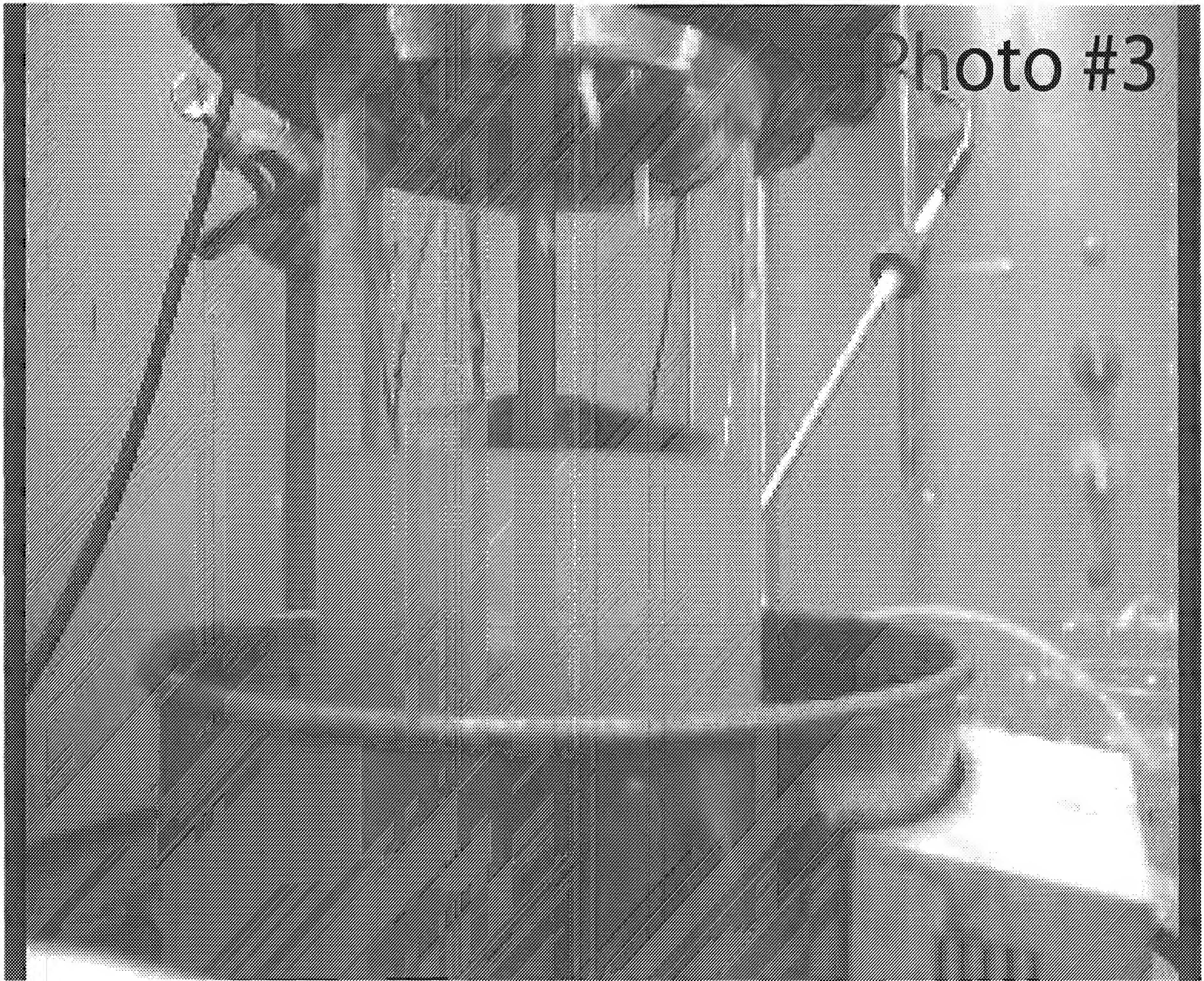
Photo #3

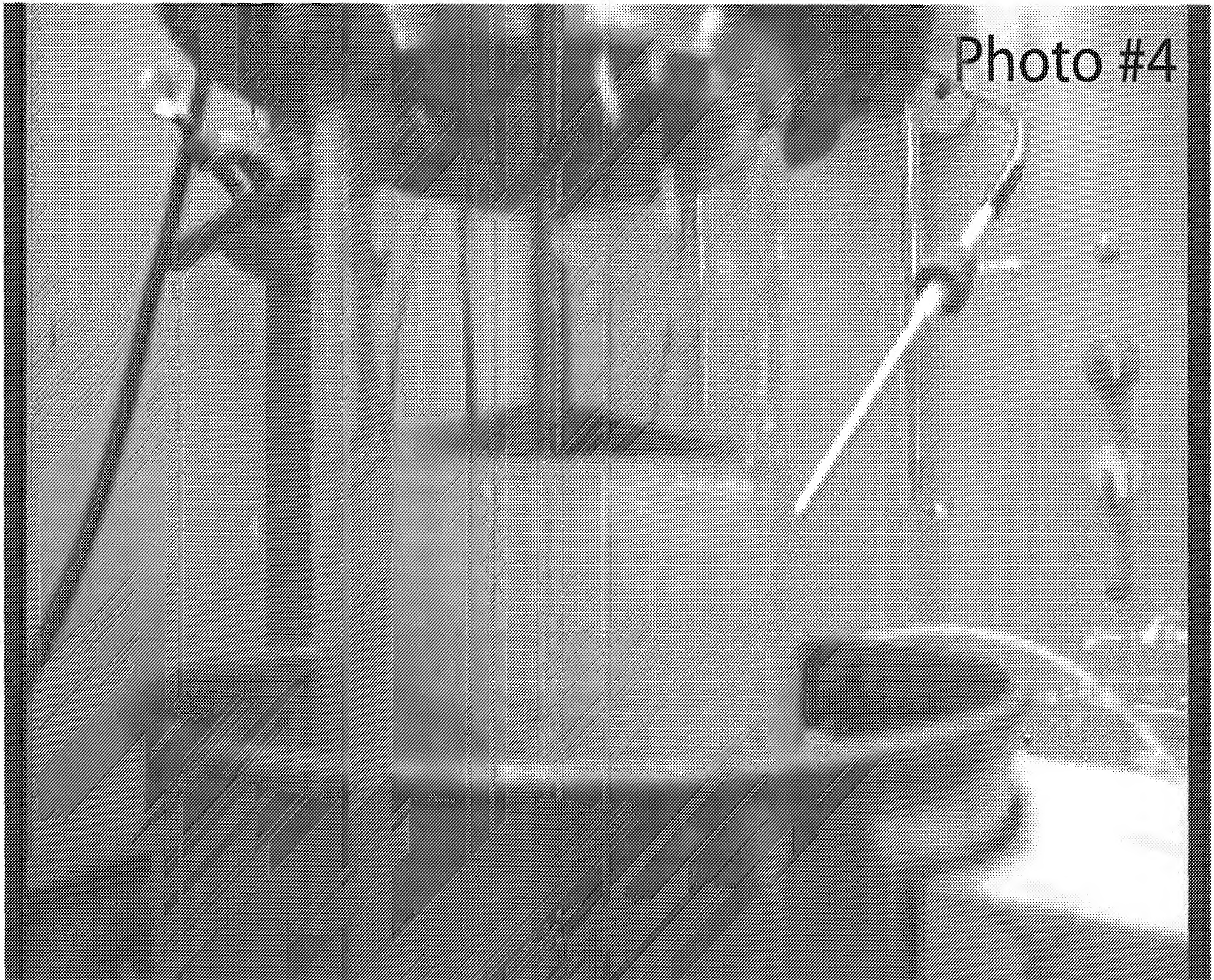

Photo #4

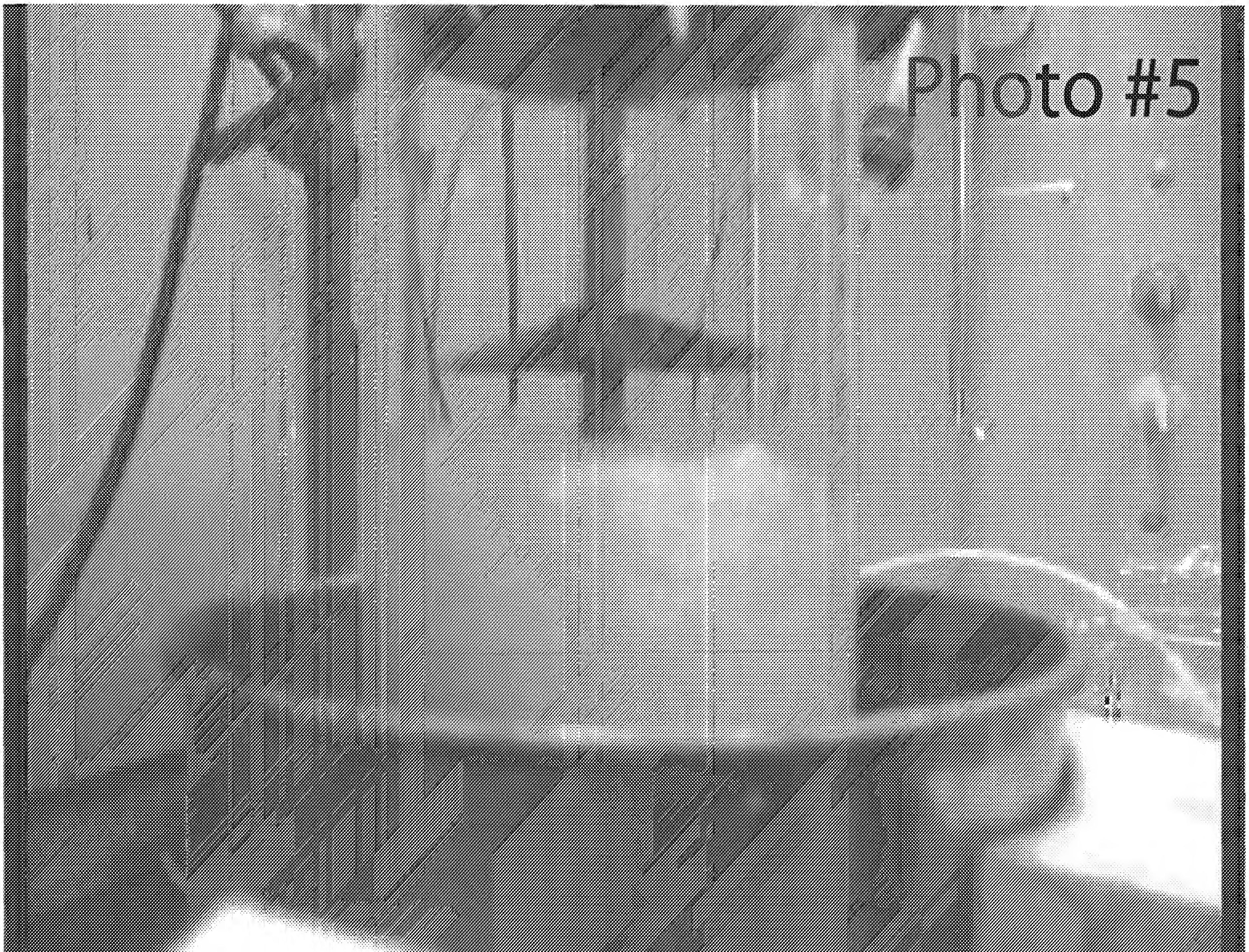

Photo #5

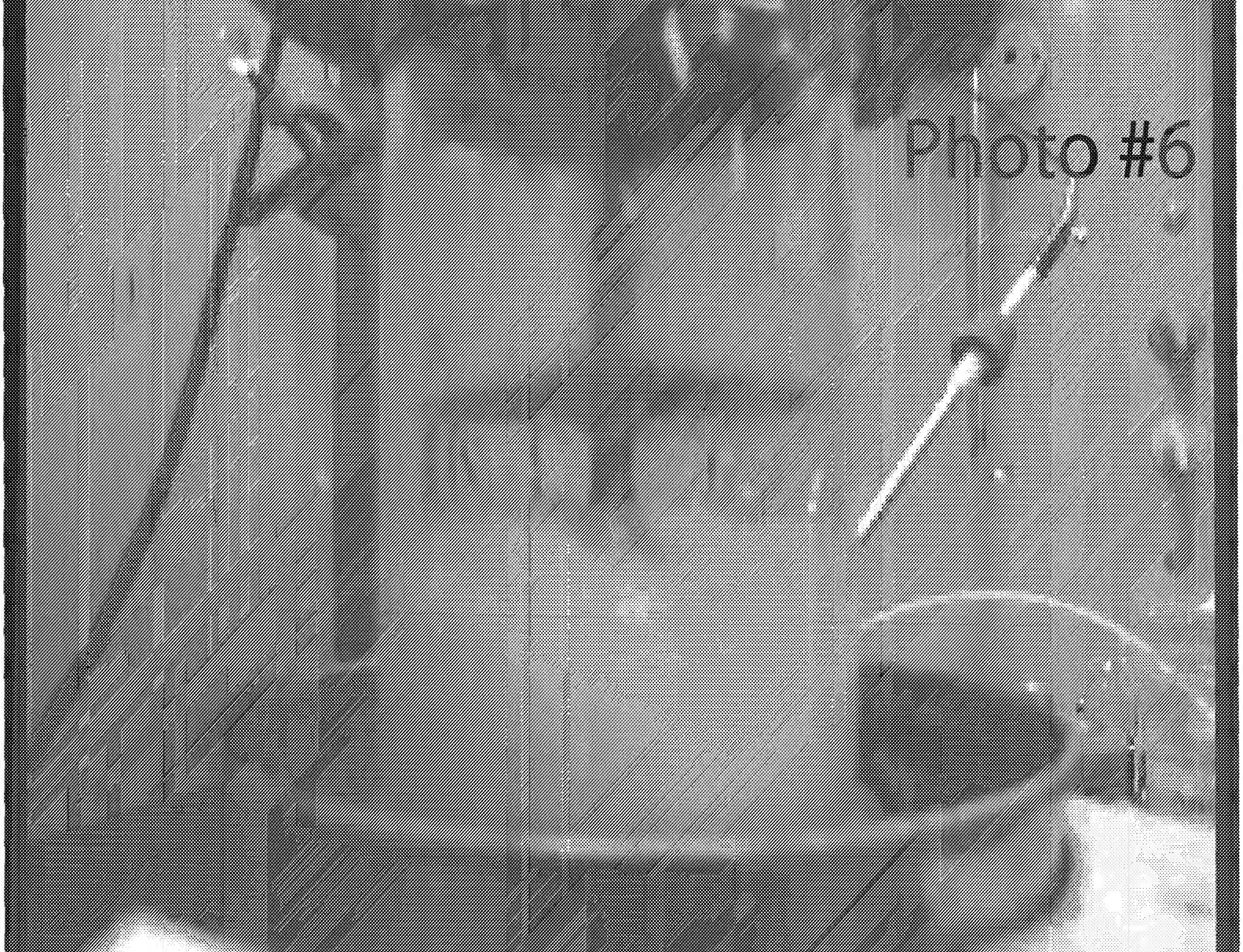

Photo #6


Photo #7